11

- when the metadata associated with the file is indicated by
- retrieve the associated file stored in the content addressable storage; and
- send the retrieved file to the requester:
- wherein sending the local content to the requester and sending the retrieved file to the requester comprise excluding or flagging any duplicate files.
- 12. The system of claim 11, wherein the computer-implemented system for managing metadata in a content addressable storage system is further configured to:
 - send the query to a second content addressable storage
 - receive one or more files related to the query from the 15 second content addressable storage system; and
 - send to the requester the retrieved file and the one or more files related to the query from the second content addressable storage system.
- 13. The system of claim 11, wherein the content address- 20 able storage system stores DICOM images having headers and the metadata is related to the headers of the DICOM images.
- 14. A computer-implemented system for managing metadata in a content addressable storage (CAS) system, compris- 25
 - a CAS system comprising at least one computer processor configured to:
 - receive a file for storage and receive a second copy of the same file, said file and the second copy of the same file 30 to be stored using content addressable storage; and
 - store metadata associated with the file and the second copy of the file in a searchable storage mechanism for storing metadata for CAS; and
 - an application server comprising at least one computer 35 processor, the application server configured to:
 - receive a first query from a requester for content at an application server, wherein the application server comprises a local storage device and wherein the local storage device and the CAS system are distinct;
 - send a second query, related to the first query, to the CAS system;
 - receive one or more files related to the second query from the CAS system; and
 - send a result set to the requester, the result set compris- 45 content storage, the system comprising: ing one or more files found locally based on the first guery and the one or more files received from the CAS system based on the second query, wherein any duplicate files are excluded or flagged in the result set.
- 15. The system of claim 14, wherein the application server 50 is further configured to:
 - send the second query to a second CAS system;
 - receive one or more files related to the second query from the second CAS system; and
 - send to the requester the one or more files received from the 55 second CAS system based on the second query.
- 16. The system of claim 14, wherein the CAS system stores DICOM images and the metadata is related to the DICOM
 - 17. A computer-implemented method comprising:
 - receiving, using one or more computer processors, a file for storage at a first fixed content storage CAS server, the file comprising a header and data;
 - receiving, using one or more computer processors, the same file for storage at a second CAS server;
 - automatically determining that the file meets the criteria for storing the file at a CAS server and storing the file at

12

- one or more CAS servers, wherein the criteria does not prevent or exclude duplicate or backup files;
- automatically obtaining, with the one or more computer processors, from the header of the file, metadata associated with the file;
- storing the metadata in at least one searchable metadata storage device at one or more CAS servers:
- receiving, at a CAS server, using the one or more computer processors, a query from a requester for content at a CAS
- forwarding the query, using the one or more computer processors, to at least one additional CAS server;
- simultaneously with or after forwarding the query to the at least one additional CAS server, searching a local storage device for local content that is related to the query;
- sending the local content to the requestor, wherein sending the local content comprises excluding or flagging any duplicate content;
- searching the metadata storage device for content related to the received query; and
- when the metadata associated with the file is indicated by the query:
- retrieving the associated file stored in the CAS server; and sending the retrieved file to the requester, wherein sending the retrieved file comprises excluding or flagging any duplicates.
- 18. The method of claim 17, wherein receiving a file for storage at a CAS server comprises storing the file using a hash function rather than a location-based directory table, the hash function configured to create an identifier uniquely and permanently linked to the content of the file itself, such that the content of the file may not change without changing the identifier.
- 19. The method of claim 17, additionally comprising waiting to send the retrieved file to the requester until after receiving results from forwarding the query to at least one additional CAS server, thereby allowing the results from 40 searching the metadata storage device and searching the additional CAS server to be delivered to the requester together. and thereby allowing duplicates to be excluded or flagged in the combined results.
 - 20. A computer-implemented system for managing fixed
 - a CAS server having at least one computer processor, the CAS server configured to:
 - receive files for storage and automatically recognize files as eligible for fixed content storage, wherein duplicate files are eligible for storage; and
 - store and retrieve files, including duplicate files, using a function that is independent of physical storage location and that maintains an identifier that is consistent for each file as long as the data comprising that file does not
 - an application server having at least one computer processor, the application server configured to:
 - receive files, including duplicate files, for local storage outside of the local cache, in non-temporary storage;
 - receive a query from a requester and convey the query to the fixed content storage server;
 - after or at the same time as conveying the inquiry, perform a search, based on the query, within its own local, nontemporary storage; and
 - retrieve any relevant local content or files and convey them to the requestor, while at the same time flagging or excluding duplicates; and